12.0 Land Use And Planning

12.1 Introduction

This chapter describes the existing land use patterns and applicable plans, policies, and land use and zoning designations within the project area; evaluates the potential effects of the proposed project on those land use patterns, plans, policies, and designations; and recommends mitigation where necessary to reduce or eliminate any significant adverse impacts identified. The chapter examines the issues and analyses recommended in the CEQA Guidelines, considering whether the project would: (a) be incompatible with existing land use in the vicinity; (b) affect agricultural resources or operations (e.g. impacts to soils or farmlands, or impacts from incompatible land uses); (c) conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project; (d) conflict with general plan designation or zoning; or (e) disrupt or divide the physical arrangement of any established community. The discussion also considers how variations in the water supply can affect land use and planning issues in the State Water Project (SWP) service areas. The scoping of the chapter also entailed consideration of the CEQ NEPA Regulations, although these regulations do not identify the specific issues or analyses that should be presented in the EIR/EIS.

This chapter first describes the affected environment and presents information about existing land uses, agricultural resources, environmental plans, and General Plan and zoning designations, along with general information about land use patterns in the SWP service areas. Next, potential environmental effects of the proposed project are evaluated along with mitigation measures necessary to reduce to a level of insignificance any potentially significant adverse impacts of the ISDP that are identified. Finally, the chapter compares the effects of the proposed project/action and alternatives on land use and planning.

Based on a review of the proposed project components and their construction and operation, the land use and planning effects of the Interim South Delta Program (ISDP) would be limited to the following: (1) The construction of the ISDP structures could potentially affect land use patterns and agricultural resources in the immediate project area; and (2) operation of the project facilities could potentially affect land uses throughout the SWP service areas. Because the proposed facilities would not be located within the boundaries of any established communities, further analysis of that issue is unwarranted.

12.2 Environmental Setting/Affected Environment

This section discusses existing and planned land use patterns in and around the proposed ISDP project area, including the proposed facility sites, the immediate project vicinity, and the surrounding south Delta area and Delta region. In addition, this section describes existing and planned land use patterns of the SWP service areas that may be directly or indirectly affected by implementation of the proposed project. Relevant land use plans, goals, and policies are also presented.

12.2.1 Regional Land Use Patterns

The legal Delta, as defined in California Water Code Section 12220, encompasses approximately 738,000 acres in portions of six counties: Alameda, Contra Costa, Solano, Yolo, San Joaquin, and Sacramento. It is roughly bordered by the cities of Sacramento, Stockton, Tracy, and Pittsburg (see Figure 12-1). The Delta's former marsh lands have been reclaimed into more than 60 islands and tracts, interwoven with about 700 miles of waterways and encircled by an 1,100-mile levee network (DWR and USBR 1990a). The waterways provide an important recreation area for fishing, boating, water skiing, hunting, and sightseeing. Most of the islands are sparsely populated and used primarily for agriculture. No major cities are situated entirely within the Delta; however, the region includes parts of Stockton, Sacramento, and West Sacramento, and all of Antioch, Pittsburg, and Tracy. In addition, several smaller cities and unincorporated communities are situated within the Delta.

Although most of the Delta is in agricultural use, with cities and small communities scattered throughout the region, land use patterns have changed considerably over the past two decades. Several areas of the Delta have undergone steady urbanization, particularly the Sacramento, Delta were in irrigated agricultural use; about 67,200 acres (9 percent) were in urban use; and approximately 83,000 acres (11 percent) were deemed native lands (DWR 1993d; 1993e). Bodies of water constituted the remaining 61,000 acres of the Delta.

12.2.2 Project Area Land Use Patterns

While the legal Delta spans portions of six counties, the south Delta includes segments of only three of those counties: Alameda, Contra Costa, and San Joaquin. Most of the land area in the south Delta lies within San Joaquin County, with smaller portions in Contra Costa and Alameda counties (DWR 1993f). The south Delta encompasses several cities and communities: Brentwood, Byron, Discovery Bay, Oakley, Ripon, Stockton, and Tracy. Nearly all the land on the south Delta islands is used for irrigated agriculture. The remaining area consists of waterways, levees, and residential, industrial, and municipal uses (DWR 1986).

Approximately 80 percent of the south Delta is used for irrigated agriculture (DWR 1986; 1993b). Irrigated acreage within the south Delta consists primarily of corn, sugar beets, alfalfa, tomatoes, asparagus, fruit, and safflower. Large expanses of irrigated and unirrigated pasture also occur within the south Delta area.

The Delta has been extensively altered from its natural state by reclaiming land and dredging waterways for agricultural water management (DWR and USBR 1990b). Consequently, an intricate network of waterways and levees serving a variety of purposes crisscrosses the project area. The 75 miles of channels in the southern Delta supply irrigation water for the adjacent farmlands; serve as drainage and floodwater canals; provide habitat and migratory routes for fish; and furnish recreational boating routes (DWR 1986; 1990b).

Farmers in the area rely heavily on south Delta channels for irrigating crops, primarily through local diversions. Methods of local agricultural diversion include siphons, pumps, and a tidal pump control structure at Tom Paine Slough. More than 500 pumps and siphons divert water directly from channels to south Delta agricultural water users.

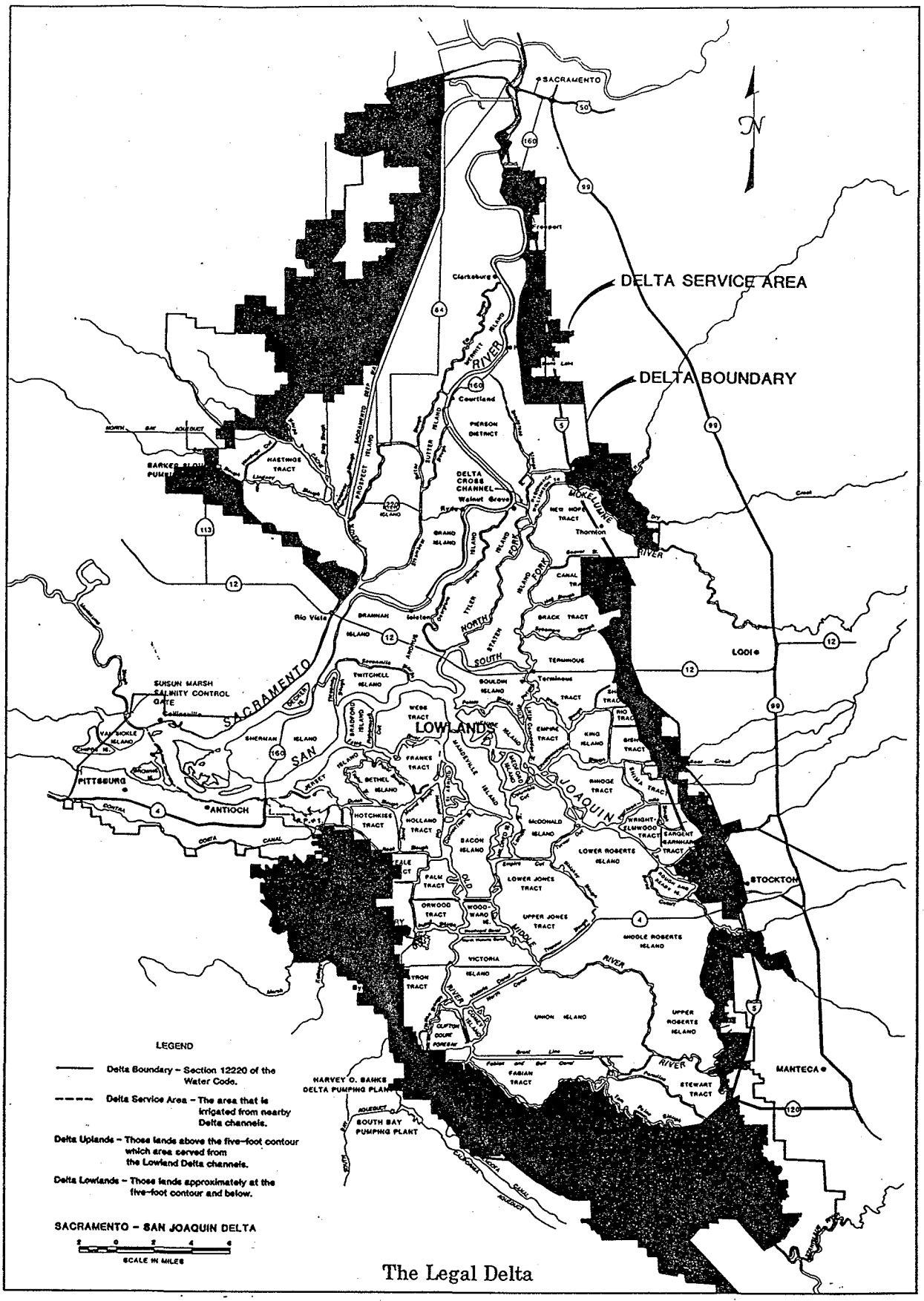

Figure 12-1. The Legal Delta.

Nearly all the south Delta waterways also function as drainage and floodwater channels. In addition, water is exported from the southern Delta at the Contra Costa Canal, at Clifton Court Forebay for the California and South Bay aqueducts, and at the Delta-Mendota Canal (DWR 1993d; County of San Joaquin 1992b). Most of the channels in the south Delta are also used for fishing and recreational boating. Nearby marinas, water-ski clubs, and yacht clubs support these activities. Recreational use of the south Delta is addressed in Chapter 13.0, Recreation.

Although urban areas are a relatively small portion of the south Delta, the absence of affordable housing in the San Francisco Bay Area has made the region highly attractive to commuters. Consequently, portions of the south Delta region, including those near the proposed project facilities, have been shifting from a rural to a suburban character with increased development and the influx of new residents.

In addition to large cities such as Stockton, many rural communities and residential areas are situated in the south Delta region. A significant development housing over 53,000 residents exists on Byron Tract at Discovery Bay. In addition, the communities of Byron, Brentwood, Lathrop, Oakley, and Ripon have grown substantially in the past decade.

The south Delta region accommodates many industrial and municipal uses, particularly those associated with water development, power supply, and freight transportation. Water development facilities prominent in the south Delta area include the California Aqueduct, Delta-Mendota Canal, John E. Skinner Delta Fish Protective Facility, Tracy Pumping Plant, Contra Costa Pumping Plant, Harvey O. Banks Delta Pumping Plant, and Delta Operations and Maintenance Center. The California Aqueduct and Delta-Mendota Canal export water from the southern Delta to southern California. The Skinner Fish Facility, at the southwest corner of Clifton Court Forebay near the California Aqueduct intake channel, diverts fish into holding tanks for return to Delta waters by special tank trucks (DWR 1986). Banks Pumping Plant, a key facility of the State Water Project, is located at the beginning of the California Aqueduct. Together with Clifton Court Forebay and a connecting intake channel, the pumping plant diverts water from the Delta for conveyance via the California and South Bay Aqueducts to contracting agencies in the southern San Francisco Bay Area, San Joaquin Valley, and southern California (DWR 1986). The Delta Operations and Maintenance Center, a complex of six one-story buildings adjacent to Banks Pumping Plant, houses the headquarters of the Delta Field Division. This Field Division is responsible for the South Bay Aqueduct and the reach of the California Aqueduct north of the joint-use federal-State water facilities near Los Banos (DWR 1986).

Electrical transmission systems and various transportation and distribution facilities also exist within the south Delta. Western Area Power Administration transmission lines cross Byron Tract (northwest-southeast) and Union Island (northeast-southwest). A large electrical substation is located near the Alameda/San Joaquin County border, and several sets of high-voltage transmission lines traverse the area. The Southern Pacific Railway follows the southern boundaries of Byron Tract and Clifton Court Tract. Numerous agricultural packing sheds and distribution facilities are spread throughout the south Delta region.

12.2.3 ISDP Facility Sites

Land uses on and adjacent to each of the proposed ISDP and alternative facilities sites are addressed in detail as follows.

Clifton Court Forebay Northern Intake Site. The Clifton Court Forebay northern intake site, located in Contra Costa County at the northeast corner of Clifton Court Forebay, is surrounded by an assortment of land uses in Contra Costa and San Joaquin counties (Figure 12-2). Italian Slough and Widdows, Eucalyptus, and Kings islands lie to the northwest of the site. Victoria Island and Old River lie to the north, Coney Island to the east, and Clifton Court Forebay to the west and southwest. The primary land uses near the intake site include undeveloped vegetated areas, residential uses, agricultural operations, and waterways.

Old River and Italian Slough meet at Widdows and Eucalyptus islands, slightly north of the proposed northern intake. Both of these islands are flooded, but mature stands of eucalyptus trees on the original levees support a blue heron rookery (DWR and USBR 1990b). Eucalyptus Island, adjacent to Kings Island, lies in Contra Costa County; Widdows Island, northwest of Eucalyptus Island, lies in San Joaquin County.

The area surrounding the proposed northern intake contains some residences and agricultural operations. Kings Island, in San Joaquin County immediately northwest of the proposed northern intake site, is a small (6.5-acre), horseshoe-shaped island containing many residences. In addition, several rural residences are distributed throughout the site vicinity, particularly on Coney and Victoria islands and Byron Tract. Most of the acreage surrounding Clifton Court Forebay is agricultural, currently under cultivation in row crops. Areas farther southwest of Clifton Court Forebay are used for grazing.

Nearby waterways and water conveyance systems include Clifton Court Forebay, several canals, and numerous agricultural pumps. Clifton Court Forebay, immediately south and west of the proposed northern intake site, has a surface area of 2,100 acres. Except for the inlet and outlet, the forebay is bounded by levees that are open to the public for fishing and waterfowl hunting. However, for safety reasons, recreation is prohibited in the intake channel, and no boating is allowed in the forebay itself (DWR 1986). Victoria and North canals are parallel dredged channels east of the site; West Canal runs approximately north-south immediately east of the site; and Old River meanders through the area north of the site. Many agricultural diversion pumps are situated in the project vicinity.

Enlarged Clifton Court Forebay. The enlarged Clifton Court Forebay site covers an area south, west, north, and northeast of the existing forebay in Contra Costa and San Joaquin counties. It encompasses areas of agricultural, open space, and water management uses. In addition, the site is surrounded by various land uses in Alameda, Contra Costa, and San Joaquin counties, including waterways, undeveloped open space, agricultural operations, and large residential communities.

North Victoria Canal/Middle River and North Victoria Canal/Old River Intake Sites. The North Victoria Canal/Middle River intake site is located at the confluence of North Victoria Canal and Middle River; the North Victoria Canal/Old River site lies approximately two miles away at the confluence of North Victoria Canal and Old River. Areas surrounding both sites consist primarily of waterways and agricultural uses, with widely scattered farmsteads and rural residences. The

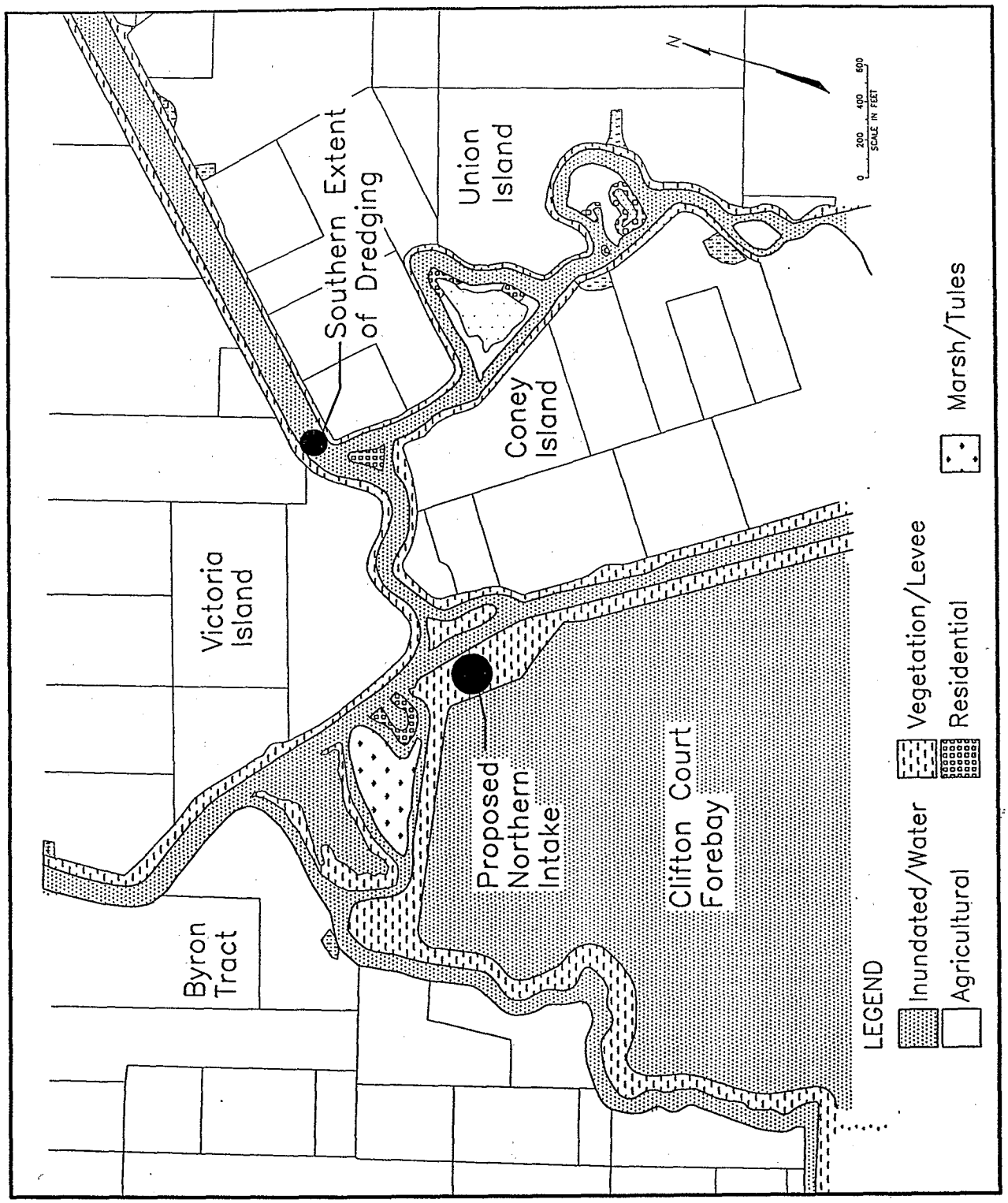

Figure 12-2. Existing Land Uses, Northern End of Clifton Court Forebay.

residence nearest the Old River intake is roughly 0.5 miles away on Orwood Tract; the residence nearest the Middle River intake is about 0.5 miles away on Upper Jones Tract.

Italian Slough Intake Site. The Italian Slough intake site is located in Contra Costa County at the southernmost juncture of Italian Slough with the west side of Clifton Court Forebay. Land uses near the intake site include undeveloped vegetated areas, residences, agricultural operations, and waterways. Italian Slough lies north of the site, Clifton Court Forebay to the east, the California Aqueduct to the south, and the Lazy M Marina to the west. Clifton Court Road crosses the intake site. The John E. Skinner Delta Fish Protective Facility is situated approximately 0.75 miles south of the proposed intake site.

Expanded Existing Intake Site. The area surrounding the existing Clifton Court Forebay intake is located at the southeast corner of Clifton Court Forebay, adjacent to West Canal, Coney Island, and Old River. As in much of the south Delta, land uses in this area consist mainly of agricultural lands, waterways, and water management facilities. In addition, two high-voltage power lines cross the proposed expansion site in an east-west direction, and several residential structures lie south and southeast of the site.

Expanded West Canal Site. The proposed West Canal expansion site consists of the westernmost portion of Coney Island, extending approximately 300 feet east into the island from the western edge. With the exception of the existing western levee, land uses on the site consist entirely of agricultural operations. West Canal lies west of the site, Old River to the north and south, and Coney Island's agricultural uses to the east.

Old River Dredging Site. The Old River dredging site consists of a 4.9-mile reach of Old River between North Victoria Canal and the north end of Coney Island. The Contra Costa-San Joaquin County line bisects the dredging site in a north-south direction, and levees flank both sides of the river, separating it from Byron Tract on the west and Victoria Island to the east (Figure 12-3). In addition to the dredging of the river channel itself, the Old River dredging process would involve the siting and use of settling ponds on either Victoria Island or Byron Tract to accommodate a slurry of dredged material. Alternatively, the dredged material would be transported to Twitchell Island for direct placement on the island's levees. The dredging site and disposal locations are surrounded by various land uses, including substantial areas of agricultural operations, State Route 4, Byron Highway and numerous residences. Farmsteads are situated adjacent to the dredging site in several locations; one lies within approximately 500 feet of the southern settling pond site. Several waterways and water bodies also surround the site, including Woodward Canal, North Victoria Canal, Victoria Canal, North Canal, Clifton Court Forebay, West Canal, and Indian Slough. The community of Discovery Bay lies approximately one mile west of the site on Byron Tract. As discussed relative to the proposed Clifton Court Forebay intake, many residences are situated near the southern end of the dredging site, particularly on Kings Island.

Old River Fish Control Structure Site. The Old River fish control structure site is located at the confluence of Old River and the San Joaquin River, due west of the City of Lathrop. Land uses in the immediate site vicinity consist primarily of large tracts of agricultural land and scattered rural residences (Figure 12-4). The City of Lathrop is located approximately two miles east of this site, and several marinas and boat launching facilities are situated north- and southeast of the site along the San Joaquin and Old rivers.

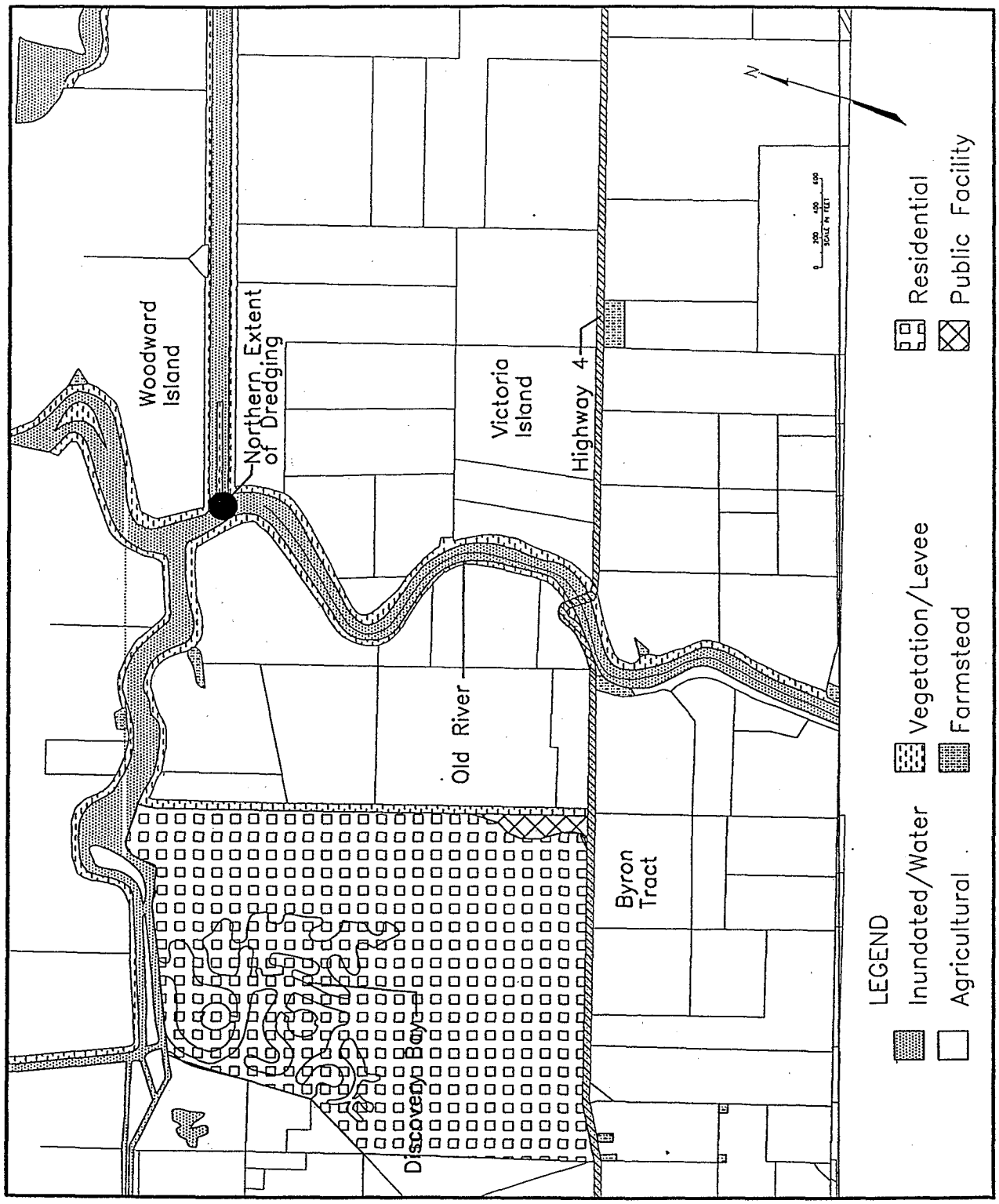

Figure 12-3. Existing Land Uses, Old River Dredging Site.

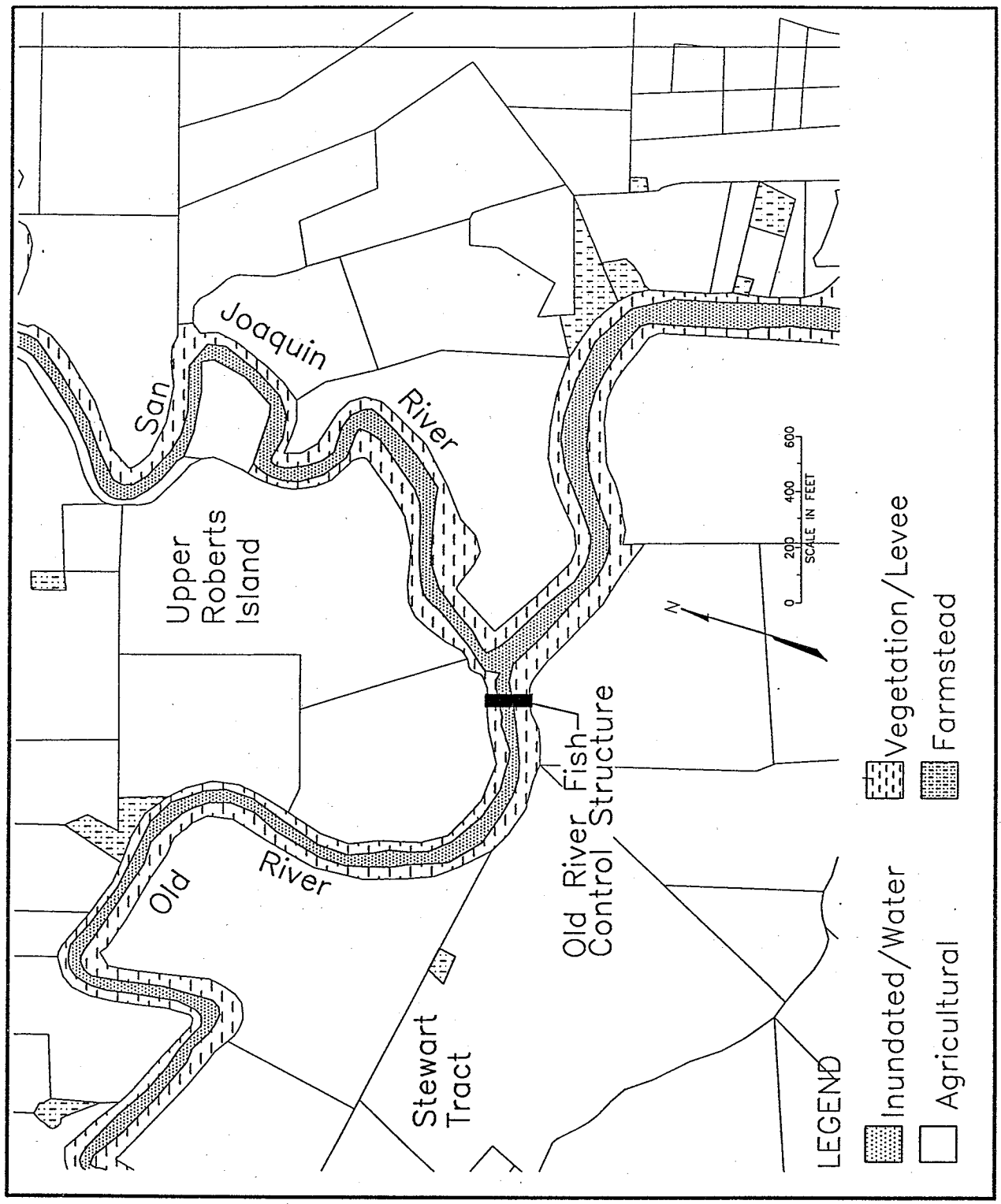

Figure 12-4. Existing Land Uses, Old and San Joaquin Rivers.

Middle River Flow Control Structure Site. The Middle River barrier site is located in Middle River near the confluence with Victoria Canal, North Canal, and Trapper Slough. Existing land uses surrounding the site include large expanses of agricultural lands, several residences, State Route 4, and the Union Point Marina (Figure 12-5). A temporary rock barrier is placed within Middle River in April, May, October, and November.

Grant Line Flow Control Structure Site. The Grant Line Canal barrier site is located at the confluence of Grant Line Canal and Old River, amid several waterways, agricultural uses, and residences (Figure 12-6). Waterways in the site vicinity include Grant Line Canal, Fabian and Bell Canal, and Old River. Grant Line, Fabian and Bell, and the Victoria canals are straight cross channels east of the site, providing travel routes and sustaining considerable water-skiing activity (DWR and USBR 1990b). Old River provides north-south water travel west of the site. Agricultural uses predominate north and south of the site on Union Island and Fabian Tract, respectively. Many residences are spread throughout the surrounding area, including the berm separating Grant Line Canal from Fabian and Bell Canal.

Old River Flow Control Structure Site. The Old River flow control structure site is located on Old River approximately 4,000 feet southeast of the junction of the Alameda, Contra Costa, and San Joaquin County lines. Due to the site's proximity to the Grant Line Canal barrier site, surrounding land uses are almost identical (Figure 12-6). However, in addition to those identified for the Grant Line Canal area, land uses near the Old River barrier site include large areas of residential development, the Delta-Mendota Canal intake facility, and light industrial uses near the confluence of the Delta-Mendota Canal and Old River. A large settlement of single-family residences lines the south bank of Old River west of the proposed structure. A temporary rock barrier is currently positioned within Old River in April, May, October, and November.

12.2.4 Agriculture

Agriculture is a major industry in the Delta, as demonstrated by the San Joaquin County General Plan. The State of California Farmland Conversion Report 1988 to 1990 indicates that 265,902 (51 percent) of Alameda County's 524,452 acres; 291,060 (57 percent) of Contra Costa County's 514,466 acres; and 788,896 (86 percent) of San Joaquin County's 912,329 acres were in agricultural production in 1990. The highest percentage of acreage in the south Delta is used for alfalfa (26 percent), followed by grains (16 percent), tomatoes (14 percent), and sugar beets (10 percent) (DWR 1993d). San Joaquin County usually ranks among the top ten counties in California for agricultural production (County of San Joaquin 1992b). Much of the agricultural success of the region can be attributed to the area's rich, productive soils and active preservation of prime agricultural lands.

The project sites account for none of the agricultural acreage in Alameda County and less than one percent of the total agricultural acreage in Contra Costa and San Joaquin counties.

- *Agricultural Soils*

Several systems are used to classify soils according to their agricultural usefulness, including the Land Capability Classification, the Storie Index, and the Important Farmland Inventory System. The Land Capability Classification System groups different soils (Class I through VIII) by the number of problems presented for plant growth. Class I and II soils are usually considered prime.

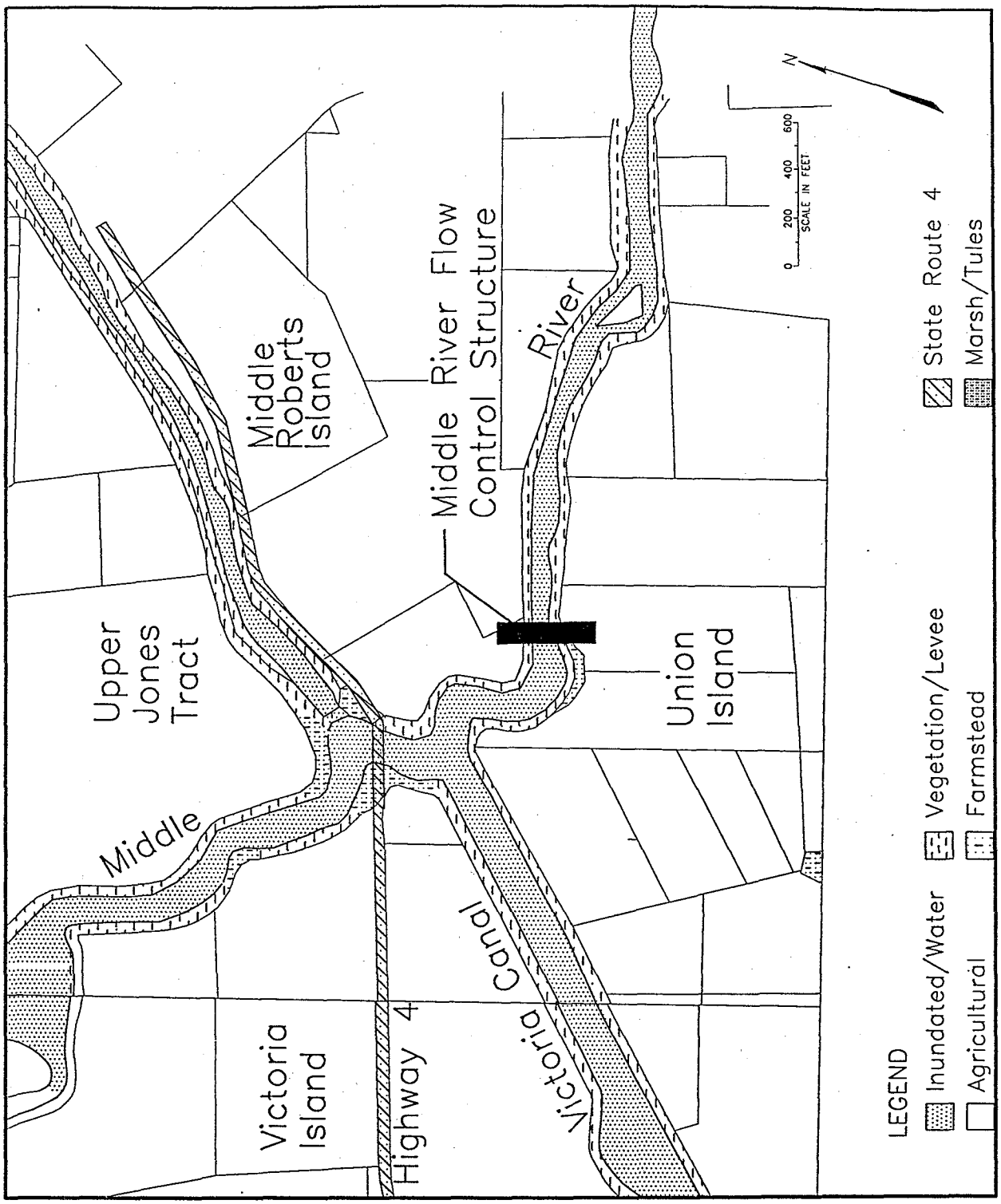

Figure 12-5. Existing land Uses, Middle River Area.

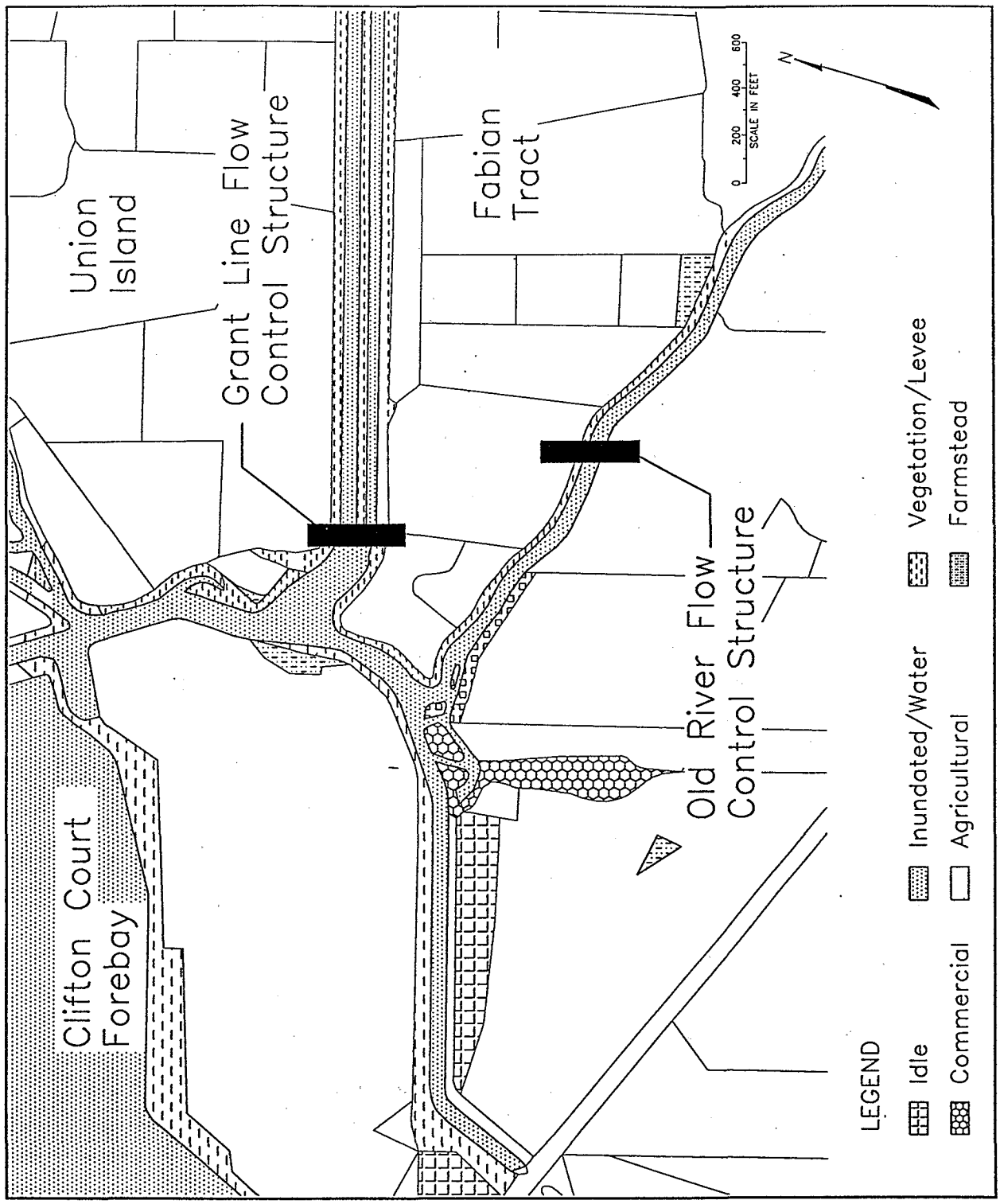

Figure 12-6. Existing Land Uses, Old River/Grant Line Canal Area.

The Storie Index uses a numerical rating scale of 0-100 to rank the soils' capacity to support crops. Soils rated 80-100 are usually considered prime. Occasionally, some Class III soils and those rated 60-79 on the Storie Index are also classified as prime. The Important Farmlands Inventory (IFI) system, initiated in 1975 by the United States Department of Agriculture Soil Conservation Service (SCS), classifies land according to soil and climatic characteristics. Most of the lands in the project area are classified as prime by the IFI, with lesser amounts of farmlands of statewide importance, unique farmlands, and farmlands of local importance scattered throughout the area. The project sites themselves fall within these classifications, although almost all of the acreage affected would consist of prime farmlands. Soils under and in the vicinity of the project sites predominantly range from Class II to Class VII capabilities. Most of these soils are considered suitable to varying degrees for row crops such as corn, tomatoes, and asparagus.

- *Williamson Act*

Much of the agricultural land within the project area is protected under Williamson Act contracts, which restrict the use of the land to agricultural and compatible uses during the term of the contract. The California Land Conservation Act of 1965 (Williamson Act), as amended, is a voluntary tax incentive program for preserving agricultural and open space lands. To be eligible for Williamson Act tax benefits, the land must be located within a County-designated agricultural preserve. A ten-year contract is entered into by the County and the property owner. The contract is renewed automatically each year unless it is canceled or one party gives notice of non-renewal. The County restricts the use of the land and is thereby guaranteed that the property will remain in an agricultural or open space use. The property owner is guaranteed that the property will be taxed according to the income it is capable of generating from agriculture and other compatible uses rather than according to its full market value.

Property may be removed from a Williamson Act contract by either of two methods: (1) filing a notice of non-renewal, which releases the property from the contract at the end of the 10-year period; or (2) applying for cancellation of the Williamson Act contract. For the County to approve a cancellation request, the cancellation must either be consistent with the purposes of the Williamson Act or be in the public interest.

12.2.5 Land Use And Zoning Designations

Portions of the project area fall under the jurisdiction of various local plans, including the East County Area Plan portion of the Alameda County General Plan, the Contra Costa County General Plan, and the San Joaquin County General Plan. In addition, parts of the project area are subject to the zoning ordinances from each of these jurisdictions. The zoning ordinances govern the type and intensity of land uses and set standards for development. The ISDP facilities were evaluated in light of the relevant General Plan and zoning designations for Alameda, Contra Costa, and San Joaquin County areas affected by the project.

12.2.6 Applicable Plans And Policies

Portions of the project area fall under the jurisdiction of several state and local plans, including the Delta Protection Act of 1992, the East County Area Plan portion of the Alameda County General Plan, the Contra Costa County General Plan, and the San Joaquin County General Plan. The ISDP

project facilities and actions were evaluated in light of the relevant goals and policies contained in these documents.

12.2.7 State Water Project Service Areas

Six service areas are supplied by the SWP: Feather River, North Bay, South Bay, San Joaquin Valley, Central Coast, and Southern California. Of these, five are likely to experience land use impacts associated with altered water deliveries; they are described below. The sixth, Feather River, is considered an area of origin and is therefore not subject to the land use effects of downstream water diversions.

North Bay Service Area. The North Bay service area coincides with Napa and Solano counties, which lie between the San Francisco Bay area and the Sacramento Valley. Napa and Solano counties, encompassing approximately 1.1 million acres, make up the entire service area. Twelve cities and numerous unincorporated communities are located within the service area.

Land uses in the North Bay service area are primarily agricultural or agriculture-related businesses. Napa County is famed for its production of wine grapes and for the manufacture of premium wines and brandies. Solano County agriculture centers on field crops, with substantial values of fruit and nut crops and a significant livestock industry. Industries using large amounts of water include two meat packing companies and a cannery in Dixon, a refinery in Benicia, a brewery in Fairfield, and two food processors in Vacaville. Two major defense facilities are located in the region: Mare Island Naval Shipyard and Travis Air Force Base. Mare Island is being closed and is expected to transition to other, industry-based land uses.

South Bay Service Area. The South Bay service area includes Santa Clara County and a portion of Alameda County. The counties in this service area encompass approximately 1.4 million acres. The South Bay service area contains eighteen cities, including San Jose, and many unincorporated urban communities.

Land use patterns have changed substantially in the South Bay in recent years. Large agricultural areas have been converted to urban and suburban use. The South Bay service area is northern California's leading business center, with manufacturing, commerce, services, and government sectors contributing significant amounts of employment and land use. Although some agricultural land use remains in the lower Santa Clara Valley, such use has declined with increasing urbanization.

Central Coast Service Area. The Central Coast service area, consisting of San Luis Obispo and Santa Barbara counties, encompasses about 3.9 million acres, including thirteen cities and many unincorporated communities. This area obtains SWP water via the Coastal Branch of the California Aqueduct. Phase I, completed in 1968, includes two pumping plants and a 15-mile canal extending from the California Aqueduct near the Kings-Kern County line westward of Devil's Den. Construction of Phase II will expand service to this area (DWR 1993f).

Agricultural and agriculture-related activities occupy much of this region. The coastal lowlands support considerable high-value fruit and vegetable farming, while the drier inland lowlands specialize in livestock and dry-farmed grains. Although placing lands under the Williamson Act agricultural preserve program has helped limit urbanization of agricultural lands in the service area,

total acreage in agricultural production in San Luis Obispo County decreased by 168,000 acres between 1984 and 1990 (San Luis Obispo Area Coordinating Council 1992).

Other large-scale land uses in the region include manufacturing, some mining and military installations, and large tracts of publicly owned lands. Limited manufacturing in the Central Coast service area involves industries that use large amounts of water, such as petroleum production, food processing, and stone, clay, and glass products. Vandenberg Air Force Base dominates the western coastal area of Santa Barbara County. Public lands include Los Padres National Forest and other U.S. Forest Service land (DWR 1993c).

San Joaquin Valley Service Area. The San Joaquin Valley service area encompasses nearly 4.6 million acres in Kern County, Kings County, and part of Stanislaus County (DWR 1986). Generally arid and sparsely populated, this area is also characterized by large farms and thriving population centers. Agriculture and closely related industries occupy large sectors of this rapidly growing region, which increased in population from 1.7 million in 1970 to 2.5 million in 1985. Agriculture in Kern and Kings counties is expected to continue developing toward larger, fewer, and more economically efficient farms, accentuating the migration from rural to urban areas. Urban areas within the San Joaquin Valley service area include Fresno, Bakersfield, Visalia, and Modesto (DWR 1993c).

Most of the agricultural use occurs on the western side of the San Joaquin Valley and on the Kern Valley floor (DWR 1993d). Crops raised in the San Joaquin Valley service area include irrigated grain, cotton, alfalfa, barley, safflower, sugar beets, fruits, vegetables, nuts, sweet potatoes, grapes, and melons. A small but increasing amount of acreage is used for deciduous orchards. Some of the unirrigated lands are used for dry-farm grain and native pasture. Except for packing sheds, cotton gins, auction yards, and similar activities directly related to marketing agricultural products, there are no industrial or commercial enterprises of significance beyond the urban boundaries. The Lemoore Naval Air Station occupies about 18,000 acres, with 14,000 used for agricultural production (DWR 1993c).

The oil industry is another primary economic activity in the San Joaquin Valley service area. Several oil fields have been developed, and the communities of Avenal and Coalinga support the agricultural and oil operations in the area. Oil production has been relatively stable in this area, and known reserves are considered sufficient to maintain such activity for many years (DWR 1993c).

Southern California Service Area. The Southern California service area includes Ventura, Los Angeles, and Orange counties and parts of San Diego, Riverside, Imperial, San Bernardino, and Kern counties. Much of the service area is heavily urbanized, although agricultural uses remain in many parts. Unlike most other large American urban areas, the suburbs of this area tend to be more intensely developed than inner-city areas. Single-family housing, characteristic of southern California, is now punctuated by numerous high-intensity centers; a growing number of those centers contain clusters of high-rise buildings (County of Los Angeles 1993).

Land use in the Southern California service area, a highly urban-industrial region, has changed dramatically since the early part of the century, when the citrus industry dominated the economy. Nearly all the region's urban and suburban areas have been built since 1900, and over 70 percent of the development has occurred since 1940 (County of Los Angeles 1993). Several factors have led to the shift from agricultural to urban uses: discovery of oil, construction of the Los Angeles-

Owens River Aqueduct, increase of port facilities to accommodate shipping and trade brought about by the Panama Canal, location of the 11th Naval District in San Diego, development of the movie and entertainment industry, and location of heavy industry such as aircraft and ship-building.

This region is the State's leading center of business, containing its largest concentration of manufacturing activity, particularly the aerospace industry. Other major industries include petroleum, fabricated metals, chemical production, food processing, and paper production. However, agricultural uses are vital to coastal southern California, where farms generally produce high-value crops on small, irrigated parcels. Agriculture, including livestock, field crops, truck crops, sugar beets, and cotton, is also important in the Colorado Desert, especially the Coachella and Imperial valleys. Poultry, livestock, and field crops are produced in the Mojave Desert. On the agricultural lands in the Antelope and Mojave basins, the principal crops are alfalfa and grain products. Almond, apple, apricot, pear, irrigated pasture, and some truck crops are also grown (DWR 1993c).

12.3 Environmental Impacts/Consequences

12.3.1 Methodology

Section 15126 of the CEQA Guidelines requires that an EIR clearly identify and describe the direct and indirect significant effects of a project, giving due consideration to short- and long-term effects. At the federal level, the Council on Environmental Quality (CEQ) NEPA Regulations guide the preparation of environmental impact statements. In accordance with the CEQ NEPA Regulations, determinations of significance in this impact analysis take the following into consideration: (1) direct effects of the proposed action and alternatives; (2) indirect effects of the proposed action and alternatives; and (3) possible conflicts between the proposed action and the objectives of federal, regional, State, and local land use plans, policies, and controls for the area concerned.

The land use evaluation is based on qualitative and quantitative comparisons of the existing and proposed uses in the project area. Changes in the type, intensity, or pattern of land uses due to project implementation were evaluated for the immediate project vicinity and the SWP service areas. Each alternative is compared to the applicable goals and policies found in relevant federal, state, and local planning documents. The evaluation does not attempt to provide a detailed explanation of the alternatives' consistency with individual goals and policies; rather, it examines the alternatives' support of the general intent of the planning documents and determines if any action would prevent a goal or policy from being met. In addition, each alternative is evaluated for its consistency with the permitted uses, densities, and other provisions of the existing zoning designations for the planning area.

Our review of the construction and operation of the proposed project facilities determined that (1) the construction of the ISDP structures would likely affect land uses in the immediate site vicinity and (2) any direct operational effects of the project on land uses were likely to be limited to the SWP service areas. Because the review did not identify any ways that the construction or operation of the ISDP might affect established communities within the project area, no further evaluation of this issue was performed. The following discussion summarizes the criteria used to identify significant adverse impacts, then evaluates the potential construction- and operation-related environmental consequences of the ISDP.

12.3.2 Significance Criteria

CEQA Section 21082.2(a) requires the determination of a project's significance to be based on "substantial evidence." As clarified in subsection (c), substantial evidence includes "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." In addition, Section 15064(b) of the CEQA Guidelines notes that the determination of significance requires "careful judgment ... based to the extent possible on scientific and factual data", and states that "the significance of an activity may vary with the setting," making a rigid definition of significant effect impracticable. Many of the plans and policies guiding land use decisions are based on qualitative, rather than quantitative, information. Consequently, this EIR/EIS determines the significance of land use and planning impacts on both qualitative and quantitative levels, as appropriate.

In accordance with CEQA and NEPA, and for the purposes of this EIR/EIS, land use impacts are considered significant if implementation of a proposed action would directly or indirectly:

Result in a substantial alteration of the present or planned land use patterns of an area, including physical disruption or division of an established community;

Convert prime agricultural land to nonagricultural use, or impair the agricultural productivity of prime agricultural land; or

Conflict with adopted environmental plans and goals of local jurisdictions, or state or federal regulatory agencies, including general plans, community plans, and zoning.

Land use changes, in and of themselves, do not constitute environmental impacts. However, the effects of such an alteration could create environmental impacts. A significant land use impact occurs where a project substantially and adversely limits the ability to use affected property in accordance with existing or designated land uses. Review and evaluation of potential land use impacts is therefore based on direct physical conflicts between land uses.

12.3.3 Project Area Impacts

- *Land Use Patterns*

Primary land uses in the south Delta have historically consisted of agricultural and water management operations. Implementation of the ISDP would involve development of additional water management components, which could conflict with the existing or planned land use patterns of some areas. The effect of each specific component on surrounding land uses is discussed in detail below.

Clifton Court Forebay Northern Intake Site. The proposed northern intake would replace an existing segment of the Clifton Court Forebay levee between West Canal and Clifton Court Forebay. Use of this area would shift from a levee to an intake structure. The presence of the intake is not anticipated to affect the continued viability of adjacent land uses such as existing agricultural and open space on Coney and Victoria islands and surrounding areas. Although a sizable residential area exists less than one-quarter mile away on Kings Island, that island is buffered from the site by the northern levee. Therefore, replacement of part of the eastern Clifton Court levee with an intake is not expected to negatively affect these uses. Furthermore, since both

the existing levee and the proposed intake facility are water management features, no substantial modification of land use would occur. This is considered a less-than-significant adverse impact.

Old River Dredging Site. The dredging process itself would take place entirely within the confines of Old River and would not constitute a change in land use. The accompanying disposal of dredge spoils on Victoria Island would alter the function of approximately 614 acres of cultivated land from agricultural operations to settling ponds. The disposal of dredge spoils on Byron Tract would alter the function of approximately 360 acres of cultivated land. The use of the lands for settling ponds would not conflict with the adjacent agricultural uses, and are therefore not expected to reduce the capability or viability of other agricultural operations in the area. The use of the dredged materials to enhance levees on Twitchell Island would be considered a compatible use. This is considered a less-than-significant adverse impact on land use patterns.

Old River Fish Control Structure Site. Most of the proposed Old River fish control facilities would be located between the levees on Old River, with a fenced storage and parking area on and adjacent to the northern levee. Surrounding uses consist primarily of farmland, with scattered rural residences. Construction of the proposed structure would create a barrier within the river where none previously existed. However, as the facilities would primarily be situated within the river channel and on or adjacent to the levees, and are not expected to conflict with neighboring uses, the effect on nearby land use patterns would be minimal. Therefore, this is considered a less-than-significant adverse impact.

Middle River Flow Control Structure Site. Construction of the Middle River flow control structure would replace an existing rock barrier with a similar but larger facility. In addition, a 0.8-acre storage area, to be located nearby on the landward side of the north levee, is expected to cover a portion of the levee toe and some agricultural land. The proposed barrier, like the existing levee and rock dam, is a water management facility. Furthermore, the amount of farmland likely to be affected would be less than one acre. Consequently, no effects on surrounding land use patterns are likely, and this is considered a less-than-significant adverse impact.

Grant Line Flow Control Structure Site. The proposed Grant Line Canal barrier complex would be located entirely within the existing channel, with the exception of a control building, standby power source building, microwave tower, and flashboard storage area. These facilities would be situated on the landward side of the levee, with the storage area occupying approximately one acre of agricultural land. Land uses surrounding the Grant Line Canal site include cropland and several rural residences. The proposed barrier would be less than 500 feet from one legal residence, located on the center berm between Grant Line and Fabian and Bell canals. The barrier could be considered incompatible with this existing use. This is considered a significant adverse impact, but this impact can be mitigated to a less-than-significant level.

Old River Flow Control Structure Site. Construction of the Old River control structure would involve creation of a new levee segment, approximately 1,000 feet long, roughly 200 feet north of the existing northern levee; the existing northern levee would be breached after construction of the flow control facility. Additional components outside the river channel would include a microwave tower, a permanent access road connecting to the existing southern levee road, and two fenced storage/parking areas.

The area south of Old River is partly developed and proposed for additional urban uses. Approximately 15 single-family residences line the south bank of Old River about 0.4 mile west of the proposed barrier. The area south of the site is planned for development as part of the new Mountain House Community Development Project. The Master Plan and Specific Plans for this project were approved in Novermber, 1995. This project will be implemented in approximately two years. Development of the northwestern portion of Mountain House would involve construction of low- and medium-density residential uses, as well as some commercial, industrial, and open space uses. Under a February 1993 San Joaquin County General Plan amendment, the portion of Mountain House immediately south of and adjacent to the barrier site is designated for development as part of a regional park, with a marina providing boat access to Old River about 0.2 mile west of the control structure. Medium-density residential units are planned between the park and marina. Development of the Old River flow control facility as proposed could limit use of the southern levee and adjoining area as a regional park, residential neighborhood, and marina. This is considered a significant and unavoidable adverse impact.

- *Agricultural Resources*

Implementation of the ISDP would involve development of water management facilities in the project area. In many cases, related structures such as storage areas and microwave towers would be situated on adjacent lands. Due to its rural location, the project has the potential to negatively affect prime farmland and land under Williamson Act contract. All the proposed water management facilities are located within the Delta primary zone, an area which the State's 1992 Delta Protection Act designates for protection from intrusion of nonagricultural uses (Section 29703a).

Development of the water management facilities proposed under ISDP would result in the conversion of approximately 620 acres of Williamson Act San Joaquin County farmland in the project area to nonagricultural uses. In addition, much of the south Delta is under Williamson Act contract. Implementation of ISDP would remove nearly 605 acres of Williamson Act land from production. The discussions below address the effects of each of the proposed water management improvements.

Clifton Court Forebay Northern Intake Site. The proposed 200- by 60- by 28-foot intake structure would replace an existing segment of the Clifton Court Forebay levee between West Canal and Clifton Court Forebay. Land affected by the proposed northern intake consists entirely of levee and dredge spoils areas. As no loss of farmland would occur, this is considered a less-than-significant adverse impact.

Old River Dredging Site. The dredging process itself would take place entirely within Old River. However, placement of dredge spoils on Victoria Island would preclude the continued use of approximately 614 acres of cultivated land. These two parcels, considered prime farmland by San Joaquin County, are under Williamson Act contract. The placement of dredge spoils in ponds on Byron Tract would preclude the continued use of approximately 360 acres of cultivated land, considered prime farmland by Contra Costa County. Although the settling ponds are expected to return to agricultural use eventually, no completion date nor method of dredge disposal has been identified. Consequently, further disposal of dredged materials from the settling ponds would be treated as a separate project to be analyzed in a later document. For the purposes of this EIR/EIS, this is considered to be a significant and unavoidable adverse impact.

Old River Fish Control Structure Site. Construction and operation of the proposed Old River fish control structure involves development of a fenced storage and parking area covering approximately 0.28 acre of land north of the northern levee. San Joaquin County designates this as prime farmland but does not presently hold it under Williamson Act contract. As construction of this storage area would remove less than one acre of agricultural land from production, this is considered a less-than-significant adverse impact.

Middle River Flow Control Structure Site. While the proposed tidal barrier itself would be located within the river, only associated facilities, including a 0.8-acre storage area, would affect agricultural production of land in the area. The storage area is proposed for the landward side of the north levee and is expected to cover part of the levee toe and some agricultural land. Considered prime farmland, this land is currently under Williamson Act contract. Due to the limited amount of land proposed for this facility, this is considered to be a less-than-significant adverse impact.

Grant Line Flow Control Structure Site. The proposed Grant Line Canal barrier facilities would be located entirely within the existing channel, with the exception of a control building, standby power source building, microwave tower, and flashboard storage area. Of these, only the storage area would be on the landward side of the levee, occupying approximately one acre of land. Land surrounding the Grant Line Canal barrier site, classified as prime agricultural land, is under Williamson Act contract. This is considered a less-than-significant adverse impact.

Old River Flow Control Structure Site. Construction of the Old River control structure would involve development of a new levee, approximately 1,000 feet long, north of the existing northern levee; the existing northern levee would be breached after construction of the flow control structure. Related facilities outside the levee area would include a microwave tower, a permanent access road connecting to the existing southern levee road, and two fenced storage/parking areas. Approximately 3.1 acres of agricultural land would be consumed by the channel expansion and associated construction. San Joaquin County designates this land, which is currently under Williamson Act contract, as prime agricultural land. This is considered a less-than-significant adverse impact.

- *Compliance With Environmental Plans And Policies*

Most of the policies contained in the Alameda, Contra Costa, and San Joaquin County general plans, and the findings of the 1992 Delta Protection Act, address the compatibility of land uses with agriculture and the preservation of open space and agricultural uses. ISDP, which would involve changes to existing land uses in the project area, would generally support most of the relevant policies in those documents. The only policies that would conflict with this alternative are those that encourage the conservation of prime farmland. Conversion of approximately 600 acres of such lands to nonagricultural uses would not achieve this end. However, since this alternative would not irretrievably commit 600 of these acres of prime farmland to other uses, and would comply with the general intent of these land use planning documents, this is considered a less-than-significant adverse impact.

- *Compliance With General Plan And Zoning Designations*

Although the CEQ NEPA Regulations, the CEQA Guidelines, and the Delta Protection Act of 1992 all emphasize the compliance of Delta projects with local land use and planning controls, development of the water management facilities proposed for San Joaquin County locations is exempt from local zoning codes pursuant to San Joaquin County policy. The Contra Costa County General Plan allows construction of public facilities regardless of underlying General Plan or zoning designations. Moreover, Government Code Section 53091 states that county zoning ordinances "shall not apply to the location or construction of facilities for the production, generation, storage, or transmission of water." Government Code Sections 53090 and 53091 confer intergovernmental immunity from building and zoning regulations, including compliance with county general plans (Curtin 1994). Although all the proposed actions would result in less-than-significant impacts pursuant to Government Code Section 53091 and county policy, the following information is provided for the benefit of the decision-makers and the public.

Clifton Court Forebay Northern Intake. The proposed northern intake structure would be located in Contra Costa County, on land designated Parks and Recreation (PR) by the Contra Costa County General Plan and A-2 under the county zoning ordinance. Facilities such as the proposed intake are not specifically identified as allowable or conditional uses in this area.

Old River Dredging Site. Dredging on Old River would occur within two counties, Contra Costa and San Joaquin, as the county line follows the middle of the river. Old River is designated Water by the Contra Costa County General Plan and Resource Conservation by the San Joaquin County General Plan. No zoning designations apply to either the Contra Costa or San Joaquin County portions of the river. The proposed settling ponds on Victoria Island would be located entirely within San Joaquin County, on land designated General Agriculture by the San Joaquin County General Plan and zoned AG-80. The ponds on Byron Tract would be located in Contra Costa County, on land designated Agricultural, Open Space, Wetlands, Parks and Other Non-Urban Uses. Settling ponds are not specifically identified as allowable or conditional uses in these areas; however, they would not be inconsistent with agricultural uses.

Old River Fish Control Structure Site. The proposed Old River fish control structure would be situated in San Joaquin County. The site falls within an area identified as Resource Conservation by the County General Plan. The zoning ordinance designates areas north and south of Old River AG-80 and AG-40, respectively. Although not specifically identified as an allowable or conditional use, the proposed structure would not be incompatible with the San Joaquin County zoning and General Plan designations.

Middle River Flow Control Structure Site. The Middle River flow control structure site lies in San Joaquin County. As with the Old River area, the site is designated Resource Conservation by the County General Plan and zoned AG-80. Consequently, the proposed barrier would not conflict with the resource conservation and agricultural designations.

Grant Line Flow Control Structure Site. The proposed Grant Line Canal barrier would be located in an area designated Resource Conservation by the San Joaquin County General Plan. The site is designated AG-80 by the zoning ordinance. As with other water management facilities now sited in or and proposed for such areas, the Grant Line Canal barrier would not conflict with these designations.

Old River Flow Control Structure Site. The Old River control structure would be situated in San Joaquin County, on a site designated Resource Conservation by the County General Plan and zoned AG-80. The proposed facility would not conflict with these designations.

12.3.4 State Water Project Service Area Impacts

- *Land Use Patterns*

The ISDP itself would not directly affect the land use patterns in SWP service areas. Development of those areas is determined by the land use decisions of each individual jurisdiction. However, implementation of ISDP could lead to increased availability of water resources within all the SWP service areas except the Feather River and North Bay service areas. Water supply is a primary constraint to a variety of land uses from agriculture to urban development. The availability of additional water to SWP service area customers could encourage land use changes ranging from increases in irrigated agricultural acreage to accelerated urbanization of agricultural and other undeveloped areas. However, expected increases in water deliveries would be minimal, representing approximately two to three percent of current entitlements. Furthermore, much of this increase is expected to address existing water shortages and, as noted in Chapter 23.0, Growth-Inducing Impacts, could only support less than one percent of the adopted population growth projections for these areas. For these reasons, this is considered a less-than-significant impact on service area land use patterns and agricultural resources, and would not affect compliance with any environmental plans or policies, or applicable general plan or zoning designations in any of the service areas.

12.4 Mitigation Measures

12.4.1 Project Area Land Use Patterns

Construction and operation of the Grant Line Canal barrier at the west end would be incompatible with nearby residential use, and the Old River flow control structure would restrict the intended use of adjacent lands to the south. The relocation of the Grant Line Canal Barrier to the east end of the canal could reduce some of these impacts to less-than significant. The proposed relocation site is approximately 5.5 miles east of the current location, or 500 feet east of Tracy Boulevard bridge. There may be other impacts associated with relocating the barrier that would need to be evaluated.

12.4.2 Project Area Agricultural Resources

Development of the Victoria Island or Byron Island settling ponds, Middle River barrier, Grant Line Canal barrier, and Old River flow control structure represent significant and unavoidable impacts on agricultural resources, as the underlying prime farmland would no longer be available for agricultural activities. The only approach available to mitigate this impact to a less-than-significant level would be to replace the lost agricultural land. Theoretically, this could be accomplished by removing all development from an equal amount of developed prime soils and converting it to agricultural use. However, the feasibility and expense involved with such an option would preclude this approach. If the settling ponds are eventually returned to agricultural use, the loss of prime farmland associated with that particular site would no longer be considered significant

and unavoidable. However, for purposes of this EIR/EIS, no mitigation is available to reduce this adverse impact to a less-than-significant level.

12.5 Comparative Evaluation Of The Alternatives

12.5.1 Enlargement Of Clifton Court Forebay, Construction Of Two Intake Structures, Increased Export Capability, And Construction Of Permanent Barriers

This alternative, the original South Delta Water Management Program preferred alternative, would entail construction and operation of the barriers proposed as a part of the ISDP. Accordingly, this alternative would have the same barrier-related effects on land use patterns, agricultural resources, and compliance with environmental plans and policies, general plan land use designations, and zoning. In addition, this alternative would substantially enlarge Clifton Court Forebay from its current size of 2,100 surface acres to more than 5,000 surface acres, using the northern portion of Victoria Island and the remaining area of Clifton Court Tract. Two new northern intake structures would be built, one at the confluence of North Victoria Canal and Middle River and the second at the confluence of North Victoria Canal and Old River. The southeast portion of Byron Tract would hydraulically connect the existing forebay to the new area, and Highway 4 would need to be realigned, requiring construction of a new roadway parallel to the existing roadway alignment.

Land Use Patterns. The proposed Clifton Court Forebay enlargement of approximately 2,900 acres would be obtained through the inundation of existing agricultural lands. Over 40 residential, agricultural, and commercial structures would be eliminated. In addition, the proposed expansion would bring the forebay to the southern edge of SR 4 and within approximately 250 feet of the Discovery Bay community. These actions would substantially change land use patterns in the project area. This is considered a significant and unavoidable adverse impact.

The proposed North Victoria Canal intakes would replace existing levee segments on the northern edge of Victoria Island, thereby shifting the use of these areas from one type of water management facility (the levee) to another (the intake structure). The intakes themselves would not affect adjacent land uses. However, these facilities form a key component of the proposed forebay enlargement, which as evaluated above could substantially alter existing land use patterns in the project area. This is considered a less-than-significant adverse impact.

Agricultural Resources. The submersion of approximately 2,900 acres of land to enlarge Clifton Court Forebay would constitute an irretrievable loss, as it would preclude the continued use of these Class III and IV agricultural lands. Contra Costa County designates all these lands as Important Agricultural Lands, but none as Agricultural Preserve. The irretrievable commitment of important agricultural lands to nonagricultural uses is considered a significant and unavoidable adverse impact.

The proposed intakes on North Victoria Canal at Old River and Middle River would replace existing levee segments on the northern edge of Victoria Island. Affected land consists entirely of levee areas; therefore, the intakes would not remove any agricultural land from production. However, the intakes constitute a key component of the proposed forebay enlargement, which would remove large amounts of prime farmland from production (see analysis above). As the physical changes associated with construction of the intake structures themselves are not expected

to take any agricultural land out of production, this is considered a less-than-significant adverse impact.

Compliance with Environmental Plans and Policies. Policies in the Alameda, Contra Costa, and San Joaquin County general plans, and the findings of the 1992 Delta Protection Act, address the compatibility of land uses with agriculture and the preservation of open space and agricultural uses. Although this alternative would involve changes to existing land uses in the project area, it would support most of the relevant policies in those documents. However, this alternative would directly conflict with policies advocating the conservation of prime farmland. Expansion of Clifton Court Forebay would involve the permanent conversion of approximately 2,900 acres of such lands to nonagricultural uses. As this action would interfere with a primary purpose of the 1992 Delta Protection Act, this is considered a significant and unavoidable adverse impact.

Compliance with General Plan and Zoning Designations. The proposed Clifton Court Forebay enlargement would encompass lands designated Delta Recreation (DR) and Public/Semi-Public (PS) by the Contra Costa County General Plan, and General Agriculture by the San Joaquin County General Plan. The Contra Costa County portions of the site are zoned A-2, A-3 and A-4, and San Joaquin County areas are zoned AG-80. The PS designation encompasses properties owned by public agencies and allows a wide variety of public and private uses such as libraries, schools, fire stations, electric transmission lines, and pipelines. The A-2, A-3 and A-4 zoning designations allow general agricultural uses and are considered compatible with the PS and DR designations. In addition, water management uses are generally regarded as acceptable in agricultural areas of San Joaquin County.

The proposed North Victoria Canal/Middle River and North Victoria Canal/Old River intake sites are designated Resource Conservation by the San Joaquin County General Plan and zoned AG-80. The proposed intakes would not, in and of themselves, conflict with these designations.

SWP Service Area Impacts. This alternative could increase the amount of water available to SWP service areas. Consequently, effects of this alternative on SWP service area land use patterns would be comparable to those associated with the ISDP. This is considered a less-than-significant adverse impact.

12.5.2 Reduction Of CVP/SWP Exports And Management Or Reduction Of Demand For SWP Water

This alternative would incorporate reductions in the amount of water exported to SWP water users, along with implementation of measures in the service areas either to better manage the available water or to reduce the demand for water. The project facilities proposed for the ISDP would not be constructed or operated. Implementation of this alternative would not result in any negative effects upon south Delta land use patterns or agricultural resources. Because no changes would occur, no conflicts would arise between this alternative and environmental plans and policies or general plan and zoning designations. Furthermore, implementation of this alternative could result in reduced water supplies to SWP service areas. Since water supply is a basic element controlling growth and development patterns, this reduction would not likely affect existing land use patterns in those areas.

12.5.3 Modification Of CVP/SWP Exports, Consolidation Of Agricultural Diversions, Extension Of Existing Agricultural Diversions, And Increased Pumping At Harvey O. Banks Up To 10,300 cfs.

This alternative would include the ISDP actions involving the dredging of 4.9 miles of Old River and the construction and operation of a new intake facility at Clifton Court Forebay. However, under this alternative, the construction and operation of the ISDP flow and fish barriers would not occur. Instead, the alternative would include the consolidation of agricultural diversions, extending and screening 44 additional agricultural diversions, and dredging portions of Paradise Cut, Middle River, and Old River. The following is a discussion of impacts expected to occur with the construction and operation of the consolidated and extended agricultural diversions.

Land Use Patterns. Many residential and commercial structures in the south Delta are situated adjacent to the landward side of levees. The development of ten regulating reservoirs, totaling about 400 acres in surface area, would represent a conflict with the existing land use patterns. This is considered a significant and unavoidable adverse impact.

Agricultural Resources. The consolidation of agricultural diversions, including the development of ten regulating reservoirs, and the development of an estimated 1,080 acres of dredge disposal settling point, would take a total of about 1,480 acres of agricultural lands out of production. This is considered a significant adverse impact.

Compliance with Environmental Plans and Policies. The consolidation and extension of agricultural diversions, and the construction of about 11.5 miles of water pipeline, would affect the use of the affected areas. As irrigation supply systems are considered agricultural uses, they would not conflict with applicable plans or policies. This is considered a less-than-significant adverse impact.

Compliance with General Plan and Zoning Designations. The San Joaquin County General Plan designates the areas proposed for agricultural diversions as General Agriculture (A/G); these lands are zoned AG-80. The consolidated and extended agricultural diversions, while involving some changes, would generally be considered agricultural uses and are therefore unlikely to conflict with any General Plan or zoning designations in agricultural areas.

SWP Service Area Impacts. This alternative would reduce water supplies to SWP service areas. As discussed above, reduced water supplies would have no identifiable effects on service area land use patterns.

- *Mitigation*

Agricultural Resources. Implementation of the following mitigation measure would reduce this impact of the consolidated agricultural diversions to a less-than-significant level. The proposed conveyance facilities and regulating reservoirs shall be sited as close to existing levees as is feasible to minimize the amount of agricultural lands removed from production.

12.5.4 ISDP Project With An Additional Clifton Court Forebay Intake At Italian Slough

Land Use Patterns. This alternative would provide all the proposed components of the ISDP project, plus a new intake at Italian Slough. Thus, the alternative would include two intakes, one at Italian Slough and one at the northeastern corner of Clifton Court Forebay. Implementation of this alternative would result in all the effects associated with the ISDP, including unavoidable significant impacts to land use patterns and agricultural resources. It would result in less-than-significant effects to SWP service area land use patterns. The Italian Slough intake would be surrounded by levees, waterways, water management facilities, and uncultivated land. The site is designated Public/Semi-Public (PS) by the Contra Costa County General Plan and A-2 under the county zoning ordinance. As described above for the enlarged Clifton Court Forebay site, the A-2 zoning designation allows general agricultural uses and is considered compatible with the PS designation. Accordingly, no significant adverse impacts to land use patterns, agricultural resources, environmental plans and policies, or general plan and zoning designations are expected.

12.5.5 ISDP Without The Northern Intake And With An Expanded Existing Intake

This alternative would implement all the proposed components of the ISDP project, except construction of a new intake at the northeastern corner of Clifton Court Forebay. Instead, the existing Clifton Court Forebay intake and West Canal would be expanded to accommodate the additional flow. Implementation of this alternative would result in all the effects associated with the ISDP, including impacts of the barriers and settling ponds on south Delta land use patterns and agricultural resources.

Land Use Patterns. The expanded Clifton Court intake would replace an existing Clifton Court Forebay levee segment with additional intake facilities. No changes to land use patterns are expected as a result of this facility expansion. However, construction of a setback levee approximately 300 feet into Coney Island along West Canal would eliminate ongoing agricultural operations from a large portion of the island, changing the site's land use. This change could be avoided only through the elimination of the channel widening; therefore, this is considered a significant and unavoidable adverse impact.

Agricultural Resources. The expanded Clifton Court intake would replace an existing levee segment. Land affected by the expansion of the existing Clifton Court intake would consist entirely of levee areas; therefore, no loss of agricultural land would occur. However, the construction of a setback levee approximately 300 feet into the west side of Coney Island would remove approximately 59 acres of Williamson Act lands from production. This is considered a significant and unavoidable adverse impact.

Compliance with Environmental Plans and Policies. Expansion of the existing Clifton Court Forebay intake would be compatible with applicable environmental plans and policies. However, the enlargement of West Canal would directly conflict with policies advocating the conservation of prime farmland, as it would involve the permanent conversion of approximately 59 acres of such lands to nonagricultural uses. Because this action would interfere with a primary purpose of the 1992 Delta Protection Act, this is considered a significant and unavoidable impact.

Compliance with General Plan and Zoning Designations. Expansion of the existing Clifton Court intake would occur in Contra Costa County. The County General Plan designates the existing intake facility Public/Semi-Public (PS) and adjacent levee areas Parks and Recreation (PR). The entire site is zoned A-2 under the county zoning ordinance; this zoning designation allows general agricultural uses and is considered compatible with the PR and PS land use categories. Expansion of West Canal approximately 300 feet into Coney Island would encompass lands designated Delta Recreation (DR) by the Contra Costa County General Plan and zoned A-4, Agricultural Preserve. Although the loss of approximately 59 acres of Agricultural Preserve lands would conflict with the existing zoning, the Contra Costa County General Plan allows construction of public facilities regardless of underlying General Plan or zoning designations.

12.5.6 No Action (Maintain Existing Conditions)

This alternative would involve the maintenance of environmental conditions as they exist in the south Delta. The ISDP would not be approved or constructed. The potential adverse environmental effects of the ISDP project would not occur, nor would the potential water supply, water quality, and environmental benefits occur. As no additional facilities would be constructed or operated, this alternative would not conflict with current uses or alter land use patterns in the project area, have any effects on agricultural resources, or conflict with local general plan and zoning designations. Furthermore, the continuation of existing conditions would not conflict with any relevant environmental plans or policies.

12.5.7 No Action (Maintain Conditions As They Would Exist In The Future)

This alternative primarily involves water management procedures in the SWP service areas, such as water conservation measures in urban areas, efficient agricultural water management practices, land retirement, and water transfers. Implementation of this alternative would result in the maintenance of environmental conditions as they will exist in the future, without construction or operation of the ISDP. None of the proposed actions would affect land use patterns, agricultural resources, environmental plans, or general plan and zoning designations in the south Delta. Accordingly, the land use conditions in the project area would either stay the same or change without the influence of construction and operation of the ISDP.